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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/763,805

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Tapani Ryhanen

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EXAMINER

RUSH, ERIC

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

05/14/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/763,805

Applicant(s)

RYHANEN ET AL.

Examiner

ERIC RUSH

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This action is responsive to the amendments and remarks received 12 January 2009. Claims 31 - 44 are currently pending.

Double Patenting

2. The provisional rejections to claims 1 - 30 on the grounds of nonstatutory obviousness-type double patenting over copending Application No. 10/763,821 are withdrawn in view of the amendments and remarks received 12 January 2009.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 31, 33, 34 and 40 - 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Salatino et al. U.S. Patent No. 5,862,248.

- With regards to claim 31, Salatino et al. teach a sensor arrangement comprising at least one sensor, at least one integrated signal processing circuit for the measurement of signals from the at least one sensor, and interconnecting wiring between the at least one sensor and the integrated circuit, the arrangement comprises a substrate, (Salatino et al., Column 7

Lines 19 - 30) said substrate forming at least part of said interconnecting wiring (Salatino et al., Column 8 Lines 31 - 58, Column 10 Lines 10 - 62) and said substrate is further arranged to serve as a functional part of at least one said sensor, (Salatino et al., Column 7 Lines 32 - 65, Column 8 Lines 31 - 58, Column 10 Lines 10 - 62) and wherein substrate comprises means for forming a sensor together with a sensor part, (Salatino et al., Column 7 Lines 20 - 37, Column 11 Lines 28 - 60) wherein said substrate and said sensor part are galvanically separated, (Salatino et al., Column 7 Lines 3 - 37, Column 8 Lines 2 - 58) and wherein said substrate and said sensor part comprise means for transferring energy and measurement information inductively between said substrate and said sensor part. (Salatino et al., Column 7 Line 52 - Column 8 Line 30)

- With regards to claim 33, Salatino et al. teach an arrangement according to claim 31, wherein said sensor part comprises an active circuit further comprising means for measuring sensor information (Salatino et al., Column 7 Lines 19 - 31) and means for transferring the measurement information inductively to said substrate. (Salatino et al., Column 7 Lines 19 - 65)
- With regards to claim 34, Salatino et al. teach an arrangement according to claim 31, wherein said sensor is a skin contact sensor. (Salatino et al.,

Abstract, Column 6 Lines 35-47, Salatino et al. teach wherein the sensor detects a fingerprint which implicitly detects skin)

- With regards to claim 40, Salatino et al. teach an arrangement according to claim 31, wherein said arrangement further comprises a skin contact sensor. (Salatino et al., Column 7 Lines 3 – 30, Column 11 Line 28 – Column 12 Line 19)
- With regards to claim 41, Salatino et al. teach an arrangement according to claim 31, wherein said arrangement further comprises a sensor fixed on the substrate. (Salatino et al., Column 7 Lines 3 – 30)
- With regards to claim 42, Salatino et al teach an arrangement according to claim 31, wherein said arrangement comprises a biometric sensor. (Salatino et al., Column 11 Line 28 – Column 12 Line 19)

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salatino et al. U.S. Patent No. 5,862,248 as applied to claim 31 above, and further in view of Kim U.S. Publication No. 2003/0210809.

- With regards to claim 32, Salatino et al. teach an arrangement according to claim 31. Salatino et al. fail to specifically teach wherein said sensor part is a passive circuit. Kim teaches an arrangement wherein a sensor part is a passive circuit. (Kim, Page 3 Paragraph 0041) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Salatino et al. with the teachings of Kim. This modification would have been prompted in order to "maximize the effectiveness of each sensing circuit element" and to minimize the connections to the signal processing chip. (Kim, Page 1 Paragraph 0013)

7. Claims 35, 37, 38, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salatino et al. U.S. Patent No. 5,862,248 as applied to claim 31 above, and further in view of Harkin U.S. Patent No. 6,327,376.

- With regards to claim 35, Salatino et al. teach an arrangement according to claim 31. Salatino et al. fail to teach wherein the arrangement further comprises an infrared light source, an infrared light detector and second measurement means for measuring absorption of infrared light from the finger. Harkin teaches an arrangement which comprises an infrared light source, (Harkin, Column 7 Line 55 - Column 8 Line 29) a infrared light detector (Harkin, Column 7 Line 55 - Column 8 Line 29) and second

measurement means for measuring absorption of infrared light from the finger. (Harkin, Column 7 Line 55 - Column 8 Line 29) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Salatino et al. to include the teachings of Harkin. This modification would have been prompted in order to increase "the security of recognition or authentication by providing further validation and reducing the possibility of fraudulent deception through use, for example, of a replica finger." (Harkin, Column 8 Lines 40 – 44)

- With regards to claim 37, Salatino et al. teach an arrangement according to claim 31. Salatino et al. fail to teach wherein said arrangement further comprises a temperature sensor for measuring ambient temperature. Harkin teaches an arrangement comprising a temperature sensor for measuring ambient temperature. (Harkin, Column 8 Lines 24 – 29) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Salatino et al. to include the teachings of Harkin. This modification would have been prompted in order to increase "the security of recognition or authentication by providing further validation and reducing the possibility of fraudulent deception through use, for example, of a replica finger." (Harkin, Column 8 Lines 40 – 44)

- With regards to claim 38, Salatino et al. teach an arrangement according to claim 31. Salatino et al. fail to teach wherein said arrangement further comprises a humidity sensor for sensing ambient temperature. Harkin teaches an arrangement comprising additional biosensors capable of detecting biometric characteristics. (Harkin, Column 8 Lines 1 – 44) Harkin does not specifically teach a humidity sensor for sensing ambient humidity but teaches the use of a variety of biosensors, temperature, pulse, oxygen, and leaves it open for "other kinds of biosensors...". The Examiner takes official notice of the fact that the inclusion of additional biosensor(s) such as a humidity sensor is well known in the art. Therefore it would have been obvious to include a humidity sensor into the arrangement of Salatino et al. This modification would have been prompted in order to increase "the security of recognition or authentication by providing further validation and reducing the possibility of fraudulent deception through use, for example, of a replica finger." (Harkin, Column 8 Lines 40 – 44)

The Examiner notes that the common knowledge or well-known in the art statement is taken to be admitted prior art because Applicant failed to traverse the Examiner's assertion of official notice.
- With regards to claim 43, Salatino et al. teach a mobile terminal, wherein it includes a sensor arrangement according to claim 31. Salatino et al. fail to

teach a mobile terminal, characterized in that it includes a sensor arrangement according to claim 31. Harkin teaches an arrangement in which a sensor arrangement is included in a mobile terminal. (Harkin, Column 10 Lines 15 - 50) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Salatino et al. to include the teachings of Harkin. This modification would have been prompted in order to incorporate an added level of security into personal portable electronic devices.

- With regards to claim 44, Salatino et al. in view of Harkin teach a mobile terminal according to claim 43. Salatino et al. fail to teach wherein at least part of the sensor arrangement is encapsulated, such as molded, in the cover of the mobile terminal. Harkin teaches a mobile terminal characterized in that at least part of the sensor arrangement is encapsulated, such as molded, in the cover of the mobile terminal. (Harkin, Fig. 7, Column 10 Lines 15 – 50)

8. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salatino et al. U.S. Patent No. 5,862,248 in view of Harkin U.S. Patent No. 6,327,376 as applied to claim 35 above, and further in view of Mathiassen et al. U.S. Patent No. 7,251,351.

- With regards to claim 36, Salatino et al. in view of Harkin teach an arrangement according to claim 35. Salatino et al. fail to teach wherein said infrared light source and said infrared light detector are located at opposite sides of a groove designed for a finger. Harkin teaches an arrangement characterized in that said infrared light source and said infrared light detector are located at opposite sides of a surface designed for a finger. (Harkin, Column 7 Line 55 - Column 8 Line 29) Harkin fails to teach a groove designed for a finger. Mathiassen et al. teach an arrangement comprising a groove designed for a finger. (Mathiassen et al., Column 8 Lines 32 – 34) It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Salatino et al. in view of Mathiassen et al. This modification would have been prompted in order to obtain a complete image of the whole finger surface, including the sides of the finger.

9. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salatino et al. U.S. Patent No. 5,862,248.

- With regards to claim 39, Salatino et al. teach an arrangement according to claim 31. Salatino et al. fail to teach wherein said arrangement further comprises a pressure sensor. The Examiner takes official notice of the fact that a pressure sensor included in an arrangement such as the one of

Salatino et al. is well known in the art. Therefore it would have been obvious to include a pressure sensor into the arrangement of Salatino et al. in order to activate the circuitry upon the sensing of adequate pressure of a user's finger. This modification would allow for the arrangement to conserve power while it is in an idle state.

The Examiner notes that the common knowledge or well-known in the art statement is taken to be admitted prior art because Applicant failed to traverse the Examiner's assertion of official notice.

Response to Arguments

10. Applicant's arguments filed 12 January 2009 have been fully considered but they are not persuasive.

11. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the *language of the claims* patentably distinguishes them from the references.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC RUSH whose telephone number is (571)270-3017. The examiner can normally be reached on 7:30AM - 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew C Bella/

Art Unit: 2624

Supervisory Patent Examiner, Art
Unit 2624

ER